

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior listings of claims in the application:

1-10. (CANCELED)

11. (CURRENTLY AMENDED) A method of performing a phototherapeutic procedure which comprises:

(a) administering an effective amount of an organic azide photosensitizer having the formula



wherein Ar is an aromatic or a heteroaromatic radical derived from the group consisting of benzenes, polyfluorobenzenes, naphthalenes, naphthoquinones, anthracenes, anthraquinones, phenanthrenes, tetracenes, naphthacenediones, pyridines, quinolines, isoquinolines, indoles, isoindoles, pyrroles, imidazoles, pyrazoles, pyrazines, purines, benzimidazoles, benzofurans, dibenzofurans, carbazoles, acridines, acridones, phenanthridines, thiophenes, benzothiophenes, dibenzothiophenes, xanthenes, xanthones, flavones, coumarins, and anthacyclines; E is a hydrogen atom or is selected from the group consisting of somatostatin receptor binding molecules, ST receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, CCK receptor binding molecules, steroid receptor binding molecules, and carbohydrate receptor binding molecules; L is selected from the group consisting of $-(CH_2)_a$, $-(CH_2)_bCONR^1$, $-N(R^2)CO(CH_2)_c$, $-OCO(CH_2)_d$, $-(CH_2)_eCO_2$, $-OCONH$, $-OCO_2$, $-HNCONH$, $-HNCSNH$, $-HNNHCO-OSO_2$, $-NR^3(CH_2)_eCONR^4$, $-CONR^5(CH_2)_fNR^6CO$, and $-NR^7CO(CH_2)_gCONR^8$; X is either a single bond or is selected from the group consisting of $-(CH_2)_h$, $-OCO$, $HNCO$, $-(CH_2)_jCO$, and $-(CH_2)_kOCO$; R^1 to R^8 are independently selected from the group consisting of hydrogen, C1-C10alkyl, -OH, C1-C10 polyhydroxyalkyl, C1-C10 alkoxyl, C1-C10 alkoxyalkyl, $-SO_3H$, $-(CH_2)_lCO_2H$, and $-(CH_2)_mNR^9R^{10}$; R^9 and R^{10} are independently selected from the group consisting of hydrogen, Cl-C10 alkyl, C5-C10 aryl, and C1-C10 polyhydroxyalkyl; and subscripts a to l independently range from 0 to 10;

(b) allowing said photosensitizer to accumulate in target tissue; and

(c) exposing said target tissues with the light of wavelength between 300 and 1200 nm with sufficient power and fluence rate to perform the phototherapeutic procedure; with the proviso that:

when E is a steroid binding molecule and L is $-(CH_2)_a$, a is not 0; or

when E is a steroid binding molecule and X is $(CH_2)_h$, h is not 0.

12. (CURRENTLY AMENDED) The method of claim 11, wherein Ar is an aromatic or heteroaromatic radical derived from polyfluorobenzenes; E is selected from the group consisting of somatostatin receptor binding molecules, ST receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, CCK receptor binding molecules, and steroid receptor binding molecules; L is selected from the group consisting of $-(CH_2)_bCONR^1$, $-N(R^2)CO(CH_2)_c$, $-OCO(CH_2)_d$, $-(CH_2)_eCO_2$, $-HNCONH$, $-HNCSNH$, and $-NR^7CO(CH_2)_gCONR^8$;

X is either a single bond or is selected from the group consisting of $-(\text{CH}_2)_{h-}$, $-\text{OCO}-$, $-(\text{CH}_2)\text{CO}-$, and $-(\text{CH}_2)_j\text{OCO-}[[\ldots]]$; R^1 , R^2 , R^7 and R^8 are independently selected from the group consisting of hydrogen, C1-C10 alkyl, C1-C10 polyhydroxyalkyl, $-(\text{CH}_2)_k\text{CO}_2\text{H}$, and $-(\text{CH}_2)_l\text{NR}^9\text{R}^{10}$; R^9 and R^{10} are independently selected from the group consisting of hydrogen, C1-C10 alkyl, and C1-C10 polyhydroxyalkyl; and subscripts b-e and g-j independently range from 0 to 6.

13. (WITHDRAWN) The method of claim 11, wherein Ar is an aromatic or heteroaromatic radical derived from anthraquinones; E is selected from the group consisting of somatostatin receptor binding molecules, ST receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, CCK receptor binding molecules, and steroid receptor binding molecules; L is selected from the group consisting of $-(\text{CH}_2)_b\text{CONR}^1$, $-\text{N}(\text{R}^2)\text{CO}(\text{CH}_2)_c$, $-\text{OCO}(\text{CH}_2)_d$, $-(\text{CH}_2)_e\text{CO}_2$, $-\text{HNCONH-}$, $-\text{HNCSNH-}$, and $-\text{NR}^7\text{CO}(\text{CH}_2)_g\text{CONR}^8$; X is either a single bond or is selected from the group consisting of $-(\text{CH}_2)_{h-}$, $-\text{OCO-}$, $-(\text{CH}_2)\text{CO-}$, and $-(\text{CH}_2)_j\text{OCO-}$; R^1 , R^2 , R^7 and R^8 are independently selected from the group consisting of hydrogen, C1-C10 alkyl, C1-C10 polyhydroxyalkyl, $-(\text{CH}_2)_k\text{CO}_2\text{H}$, and $-(\text{CH}_2)_l\text{NR}^9\text{R}^{10}$; R^9 and R^{10} are independently selected from the group consisting of hydrogen, C1-C10 alkyl, and C1-C10 polyhydroxyalkyl; and subscripts b-e and g-j independently range from 0 to 6.

14. (WITHDRAWN) The method of claim 11, wherein Ar is an aromatic or heteroaromatic radical derived from naphacenenediones; E is selected from the group consisting of somatostatin receptor binding molecules, ST receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, CCK receptor binding molecules, and steroid receptor binding molecules; L is selected from the group consisting of $-(\text{CH}_2)_b\text{CONR}^1$, $-\text{N}(\text{R}^2)\text{CO}(\text{CH}_2)_c$, $-\text{OCO}(\text{CH}_2)_d$, $-(\text{CH}_2)_e\text{CO}_2$, $-\text{HNCONH-}$, $-\text{HNCSNH-}$, and $-\text{NR}^7\text{CO}(\text{CH}_2)_g\text{CONR}^8$; X is either a single bond or is selected from the group consisting of $-(\text{CH}_2)_{h-}$, $-\text{OCO-}$, $-(\text{CH}_2)\text{CO-}$, and $-(\text{CH}_2)_j\text{OCO-}$; R^1 , R^2 , R^7 and R^8 are independently selected from the group consisting of hydrogen, C1-C10 alkyl, C1-C10 polyhydroxyalkyl, $-(\text{CH}_2)_k\text{CO}_2\text{H}$, and $-(\text{CH}_2)_l\text{NR}^9\text{R}^{10}$; R^9 and R^{10} are independently selected from the group consisting of hydrogen, C1-C10 alkyl, and C1-C10 polyhydroxyalkyl; and subscripts b-e and g-j independently range from 0 to 6.

15. (WITHDRAWN) The method of claim 11, wherein Ar is an aromatic or heteroaromatic radical derived from indoles; E is selected from the group consisting of somatostatin receptor binding molecules, ST receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, CCK receptor binding molecules, and steroid receptor binding molecules; L is selected from the group consisting of $-(\text{CH}_2)_b\text{CONR}^1$, $-\text{N}(\text{R}^2)\text{CO}(\text{CH}_2)_c$, $-\text{OCO}(\text{CH}_2)_d$, $-(\text{CH}_2)_e\text{CO}_2$, $-\text{HNCONH-}$, $-\text{HNCSNH-}$, and $-\text{NR}^7\text{CO}(\text{CH}_2)_g\text{CONR}^8$; X is either a single bond or is selected from the group consisting of $-(\text{CH}_2)_{h-}$, $-\text{OCO-}$, $-(\text{CH}_2)\text{CO-}$, and $-(\text{CH}_2)_j\text{OCO-}$; R^1 , R^2 , R^7 and R^8 are independently selected from the group consisting of hydrogen, C1-C10 alkyl, C1-C10 polyhydroxyalkyl, $-(\text{CH}_2)_k\text{CO}_2\text{H}$, and $-(\text{CH}_2)_l\text{NR}^9\text{R}^{10}$; R^9 and R^{10} are independently selected from the group consisting of hydrogen, C1-C10 alkyl, and C1-C10 polyhydroxyalkyl; and subscripts b-e and g-j independently range from 0 to 6.

16. (WITHDRAWN) The method of claim 11, wherein Ar is an aromatic or heteroaromatic radical derived from acridines; E is selected from the group consisting of somatostatin receptor binding molecules, ST receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, CCK receptor binding molecules, and steroid receptor binding molecules; L is selected from the group consisting of $-(\text{CH}_2)_b\text{CONR}^1$, $-\text{N}(\text{R}^2)\text{CO}(\text{CH}_2)_c$, $-\text{OCO}(\text{CH}_2)_d$, $-(\text{CH}_2)_e\text{CO}_2$, $-\text{HNCONH}$, $-\text{HNCSNH}$, and $-\text{NR}^7\text{CO}(\text{CH}_2)_g\text{CONR}^8$; X- is either a single bond or is selected from the group 1 consisting of $-(\text{CH}_2)_h$, $-\text{OCO}$, $-(\text{CH}_2)\text{CO}$, and $-(\text{CH}_2)_j\text{OCO}_k$; R¹, R², R⁷ and R⁸ are independently selected from the group consisting of hydrogen, C1-C10 alkyl, C1-C10 polyhydroxyalkyl, $-(\text{CH}_2)_k\text{CO}_2\text{H}$, and $-(\text{CH}_2)\text{NR}^9\text{R}^{10}$; R⁹ and R¹⁰ are independently selected from the group consisting of hydrogen, C1-C10 alkyl, and C1-C10 polyhydroxyalkyl; and subscripts b-e and g-j independently range from 0 to 6.

17. (WITHDRAWN) The method of claim 11, wherein Ar is an aromatic or heteroaromatic radical derived from acridones; E is selected from the group consisting of somatostatin receptor binding molecules, ST receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, CCK receptor binding molecules, and steroid receptor binding molecules; L is selected from the group consisting of $-(\text{CH}_2)_b\text{CONR}^1$, $-\text{N}(\text{R}^2)\text{CO}(\text{CH}_2)_c$, $-\text{OCO}(\text{CH}_2)_d$, $-(\text{CH}_2)_e\text{CO}_2$, $-\text{HNCONH}$, $-\text{HNCSNH}$, and $-\text{NR}^7\text{CO}(\text{CH}_2)_g\text{CONR}^8$; X- is either a single bond or is selected from the group consisting of $-(\text{CH}_2)_h$, $-\text{OCO}$, $-(\text{CH}_2)\text{CO}$, and $-(\text{CH}_2)_j\text{OCO}_k$; R¹, R², R⁷ and R⁸ are independently selected from the group consisting of hydrogen, C1-C10 alkyl, C1-C10 polyhydroxyalkyl, $-(\text{CH}_2)_k\text{CO}_2\text{H}$, and $-(\text{CH}_2)\text{NR}^9\text{R}^{10}$; R⁹ and R¹⁰ are independently selected from the group consisting of hydrogen, C1-C10 alkyl, and C1-C10 polyhydroxyalkyl; and subscripts b-e and g-j independently range from 0 to 6.

18. (WITHDRAWN) The method of claim 11, wherein Ar is an aromatic or heteroaromatic radical derived from phenanthridines; E is selected from the group consisting of somatostatin receptor binding molecules, ST receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, CCK receptor binding molecules, and steroid receptor binding molecules; L is selected from the group consisting of $-(\text{CH}_2)_b\text{CONR}^1$, $-\text{N}(\text{R}^2)\text{CO}(\text{CH}_2)_c$, $-\text{OCO}(\text{CH}_2)_d$, $-(\text{CH}_2)_e\text{CO}_2$, $-\text{HNCONH}$, $-\text{HNCSNH}$, and $-\text{NR}^7\text{CO}(\text{CH}_2)_g\text{CONR}^8$; X- is either a single bond or is selected from the group consisting of $-(\text{CH}_2)_h$, $-\text{OCO}$, $-(\text{CH}_2)\text{CO}$, and $-(\text{CH}_2)_j\text{OCO}_k$; R¹, R², R⁷ and R⁸ are independently selected from the group consisting of hydrogen, C1-C10 alkyl, C1-C10 polyhydroxyalkyl, $-(\text{CH}_2)_k\text{CO}_2\text{H}$, and $-(\text{CH}_2)\text{NR}^9\text{R}^{10}$; R⁹ and R¹⁰ are independently selected from the group consisting of hydrogen, C1-C10 alkyl, and C1-C10 polyhydroxyalkyl; and subscripts b-e and g-j independently range from 0 to 6.

19. (WITHDRAWN) The method of claim 11, wherein Ar is an aromatic or heteroaromatic radical derived from xanthones; E is selected from the group consisting of somatostatin receptor binding molecules, ST receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, CCK receptor binding molecules, and steroid receptor binding molecules; L is selected from the group consisting of $-(\text{CH}_2)_b\text{CONR}^1$, $-\text{N}(\text{R}^2)\text{CO}(\text{CH}_2)_c$, $-\text{OCO}(\text{CH}_2)_d$, $-(\text{CH}_2)_e\text{CO}_2$, $-\text{HNCONH}$, $-\text{HNCSNH}$, and

$-NR^7CO(CH_2)_gCONR^8$; X- is either a single bond or is selected from the group consisting of $-(CH_2)_h$ -, $-OCO$ -, $-(CH_2)_bCO$ -, and $-(CH_2)_bOCO$ -, R¹, R², R⁷ and R⁸ are independently selected from the group consisting of hydrogen, C1-C10 alkyl, C1-C10 polyhydroxyalkyl, $-(CH_2)_kCO_2H$, and $-(CH_2)_bNR^9R^{10}$; R⁹ and R¹⁰ are independently selected from the group consisting of hydrogen, C1-C10 alkyl, and C1-C10 polyhydroxyalkyl; and subscripts b-e and g-j independently range from 0 to 6.

20. (WITHDRAWN) The method of claim 11, wherein Ar is an aromatic or heteroaromatic radical derived from anthracyclines, E is selected from the group consisting of somatostatin receptor binding molecules, ST receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, CCK receptor binding molecules, and steroid receptor binding molecules; L is selected from the group consisting of $-(CH_2)_bCONR^1$, $-N(R^2)CO(CH_2)_c$, $-OCO(CH_2)_d$, $-(CH_2)_eCO_2$, $-HNCONH$, $-HNCSNH$, and $-NR^7CO(CH_2)_gCONR^8$; X- is either a single bond or is selected from the group consisting of $-(CH_2)_h$ -, $-OCO$ -, $-(CH_2)_bCO$ -, and $-(CH_2)_bOCO$ -, R¹, R², R⁷ and R⁸ are independently selected from the group consisting of hydrogen, C1-C10 alkyl, C1-C10 polyhydroxyalkyl, $-(CH_2)_kCO_2H$, and $-(CH_2)_bNR^9R^{10}$; R⁹ and R¹⁰ are independently selected from the group consisting of hydrogen, C1-C10 alkyl, and C1-C10 polyhydroxyalkyl; and subscripts b-e and g-j independently range from 0 to 6.

21. (PREVIOUSLY PRESENTED) The method of claim 11 further comprising the step of allowing said photosensitizer to accumulate in said target tissue before exposing said tissue to light.

22. (PREVIOUSLY PRESENTED) The method of claim 11 wherein the photosensitizer is in a concentration ranging from about 1 nM to about 0.5 M.

23. (PREVIOUSLY PRESENTED) The method of claim 11 wherein the photosensitizer is in a concentration ranging from 1 μ M to 10 mM.

24. (PREVIOUSLY PRESENTED) The method of claim 11 wherein the photosensitizer is parenterally administered within a formulation including pharmaceutically acceptable substances selected from the group consisting of buffers, emulsifiers, surfactants, electrolytes, and combinations thereof.

25. (PREVIOUSLY PRESENTED) The method of claim 11 wherein the photosensitizer is administered by a method selected from the group consisting of aerosol spray, cutaneously, parenterally, enterally, and topically.

26. (PREVIOUSLY PRESENTED) The method of claim 11 wherein the effective amount of the photosensitizer administered is in the range of 0.1 mg/kg body weight to 500 mg/kg body weight.

27. (PREVIOUSLY PRESENTED) The method of claim 11 wherein the effective amount of the photosensitizer administered is in the range of 0.5 mg/kg body weight to 2 mg/kg body weight.